

LASER BONDING OF ANGIOPLASTY BALLOON CATHETERS

ABSTRACT OF THE DISCLOSURE

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GD
A ~~process for assembling a~~ balloon catheter ~~involves~~ which is
assembled by a process of
selectively concentrating laser energy along an annular

5 fusion bond site at contiguous surface portions of a
length of catheter tubing and a shaft or neck portion of
a dilatation balloon. The laser energy wavelength, and
the polymeric materials of the balloon and catheter, are
matched for high absorption of the laser energy to

10 minimize conductive heat transfer in axial directions
away from the bond site. This minimizes crystallization
and stiffening in regions near the bond site, permitting
fusion bonds to be located close to the proximal and
distal cones of the dilatation balloon while preserving
the soft, pliant quality of the cones.

GD 15 ~~The disclosure~~
~~further is directed to an embodiment of a balloon~~
GD ~~catheter assembled according to the process.~~ EA